

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1-35. (Canceled)

36. (Currently amended) A method of producing a molding die for molding an optical element, comprising:

shaping an amorphous alloy having a super-cooled liquid phase to form a die base body; and

forming a die face onto a part of the die base body,

wherein the die face corresponds to an optical surface of the optical element or the die face corresponds to a dimensional reference surface, and

wherein the forming step includes grinding the part of the die base body to form the die face.

37. (Previously presented) The method of claim 36, wherein the shaping step includes softening the amorphous alloy with heat and pressing the softened amorphous alloy into the form of the die base body.

38. (Canceled)

39. (Currently amended) The method of claim ~~[[38]]~~ 36, wherein the grinding step is conducted with a diamond grind stone.

40. (Currently amended) ~~The method of claim 36,~~ A method of producing a molding die for molding an optical element, comprising:

shaping an amorphous alloy having a super-cooled liquid phase to form a die base body; and

forming a die face onto a part of the die base body,

wherein the die face corresponds to an optical surface of the optical element or the die face corresponds to a dimensional reference surface, and

wherein the forming step includes cutting the part of the die base body to form the die face.

41. (Previously presented) The method of claim 40, wherein the cutting step is conducted with a diamond cutting tool.

42. (Previously presented) The method of claim 36, wherein the amorphous alloy has a hardness of not lower than Hv 300 at room temperature.

43. (Previously presented) The method of claim 42, wherein the amorphous alloy has a hardness of not more than Hv 700 at room temperature.

44. (Previously presented) The method of claim 36, wherein the amorphous alloy includes palladium in an amount ranging from 30 mol% to 50 mol% of the amorphous alloy.

45. (Previously presented) The method of claim 36, wherein the amorphous alloy includes at least one of copper, nickel, phosphor, zirconium and aluminum in an amount not less than 3 mol% of the amorphous alloy.

46. (Currently amended) ~~The method of claim 36;~~ A method of producing a molding die for molding an optical element, comprising:

shaping an amorphous alloy having a super-cooled liquid phase to form a die base body; and

forming a die face onto a part of the die base body,

wherein the die face corresponds to an optical surface of the optical element or the die face corresponds to a dimensional reference surface, and

wherein the forming step includes coating a resist on the die base body, removing a part of the coated resist by exposing the resist to an electronic beam or a laser beam, and developing a pattern by exposing the part of the die base body and developing the exposed part of the die base body to an ion shower to form the die face.

47. (Currently amended) ~~The method of claim 36,~~ A method of producing a molding die for molding an optical element, comprising:

shaping an amorphous alloy having a super-cooled liquid phase to form a die base body; and

forming a die face onto a part of the die base body,

wherein the die face corresponds to an optical surface of the optical element or the die face corresponds to a dimensional reference surface, and

wherein the forming step includes cutting the part of the die base body, coating a resist on the die base body, removing a part of the coated resist by exposing the resist to an electronic beam or a laser beam, and developing a pattern by exposing the cut part of the die base body and developing the exposed part of the die base body to an ion shower to form the die face.

48. (Previously presented) The method of claim 47, wherein the cutting step is conducted with a diamond cutting tool.

49. (Previously presented) The method of claim 46, wherein the shaping step includes softening the amorphous alloy with heat and pressing the softened amorphous alloy into the form of the die base body.

50-57. (Canceled)